

Richmond/Hampton Roads Passenger Rail Project Tier I Draft EIS

Commonwealth Transportation Board

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Chief of Rail Transportation

Project Overview

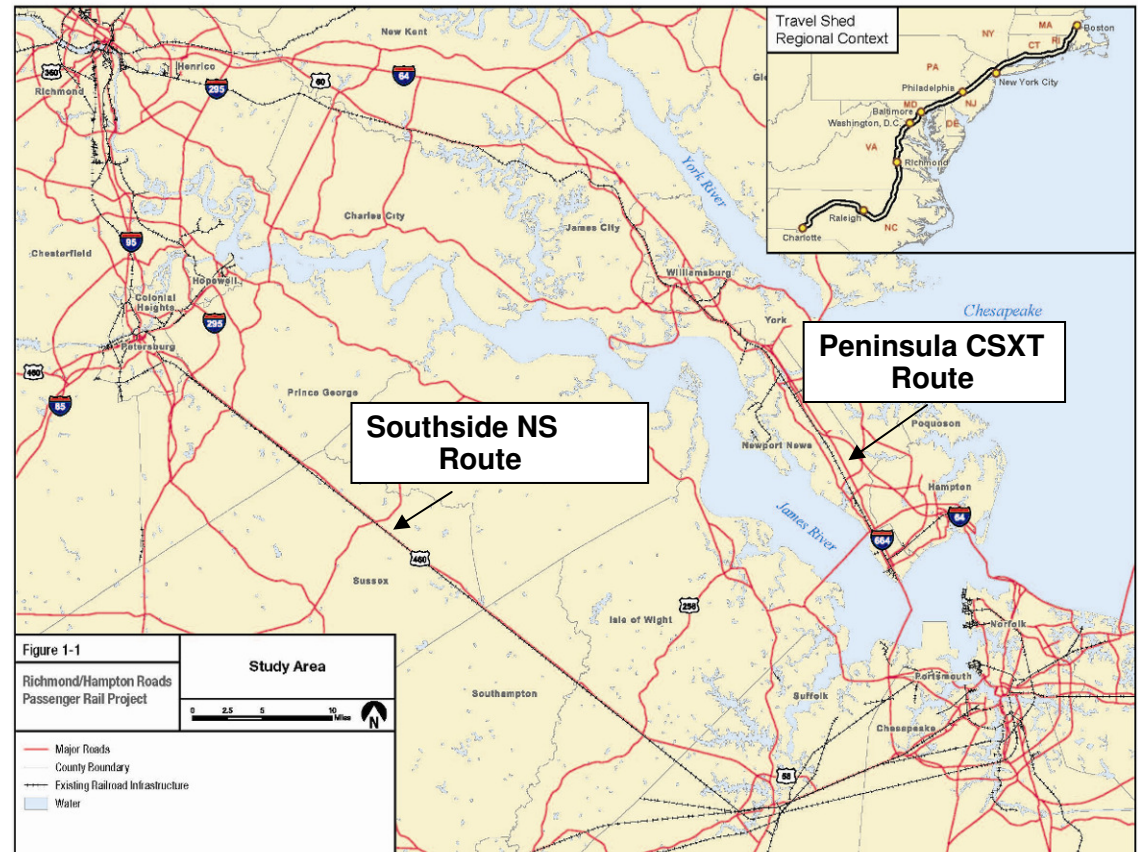
- ❑ Tier I Environmental Impact Statement (EIS) to determine the best option to improve passenger rail service between Richmond and Hampton Roads.
- ❑ The Federal Railroad Administration (FRA) is the lead federal agency and DRPT is the lead state agency.
- ❑ The Draft EIS document is now available for agency and public comment.
- ❑ Several alternatives were evaluated and rated in key categories such as environmental impact, capital and operating cost, ridership, revenue and travel time.
- ❑ Once public comments have been received and considered, the Commonwealth Transportation Board will select the Preferred Alternative.

Federal Funding

- ❑ Federal funding is a critical component of project financial plan.
- ❑ The Commonwealth will apply for federal funds to support project costs.
- ❑ The Richmond/Hampton Roads Passenger Rail Project must have “independent utility”, which means that it does not depend on the completion of any other projects.
 - Can be developed as a complete and independent project.
 - Each alternative has logical termini.
 - No alternative depends on completion of any other project.

Two Routes and Five Alternatives

- ❑ Two routes:
 - Peninsula/CSXT
 - Southside/NS
- ❑ Five alternatives with varied characteristics:
 - Routes
 - Frequencies
 - Speeds



Alternatives Under Consideration

Alternative	Route	Route Miles	Trains	Maximum Speeds
Status Quo	Peninsula/CSXT	73.9	2	79 mph
	Southside/NS	0	n/a	No train
No Action (Baseline)	Peninsula/CSXT	73.9	3	79 mph
	Southside/NS	0	n/a	No train
Alternative 1	Peninsula/CSXT	75.9	3	79 mph
	Southside/NS	101.0	6	90-110 mph
Alternative 2a	Peninsula/CSXT	75.9	6	90-110 mph
	Southside/NS	101.0	3	79 mph
Alternative 2b	Peninsula/CSXT	75.9	9	90-110 mph
	Southside/NS	0	0	No service

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Status Quo and No Action Alternatives

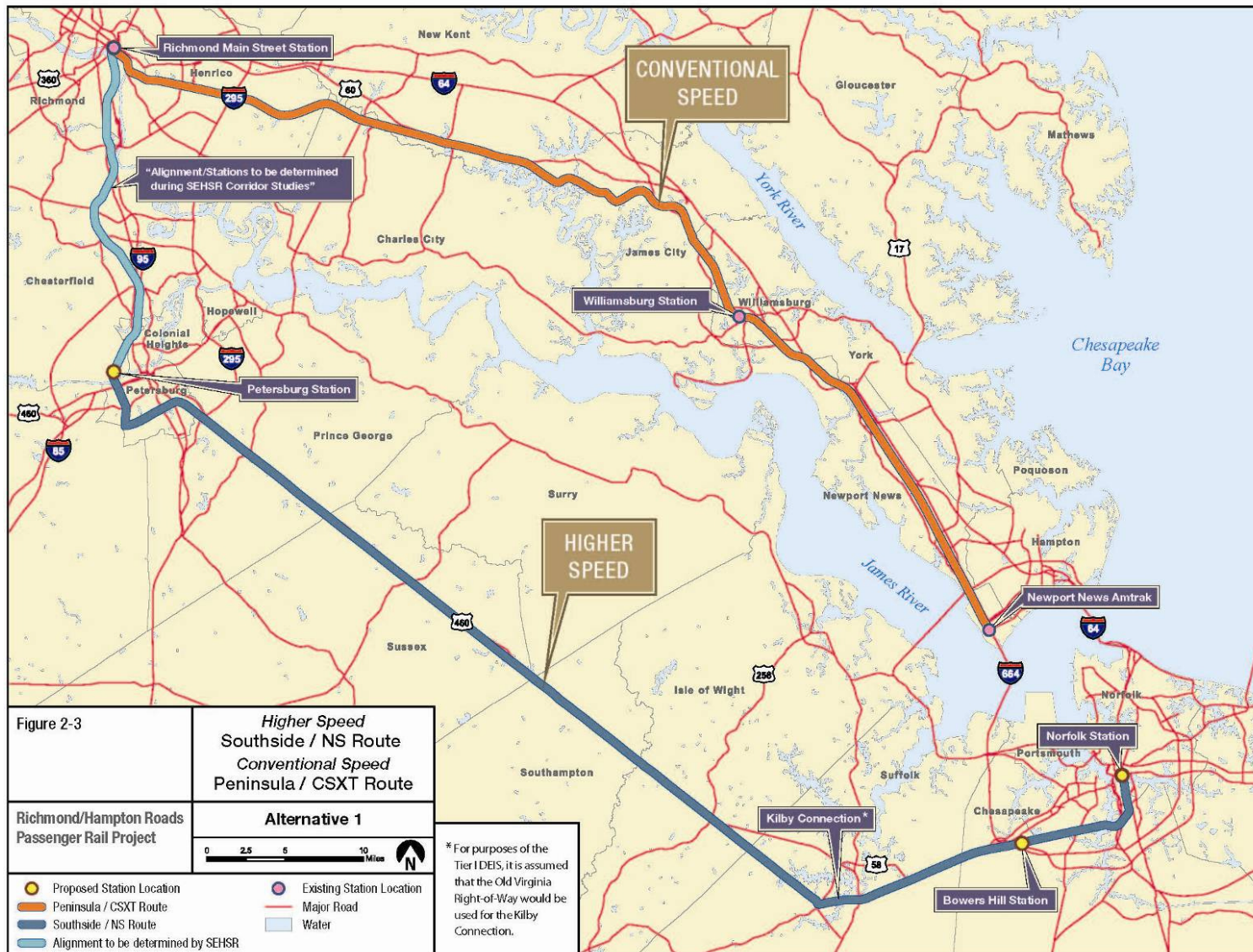
❑ Status Quo Alternative

- Existing Amtrak service (2 trains) on the Peninsula route
- Existing highways
- Existing local transit service
- Existing air travel
- Projects in financially constrained regional long range plans

❑ No Action Alternative (Baseline for Comparison)

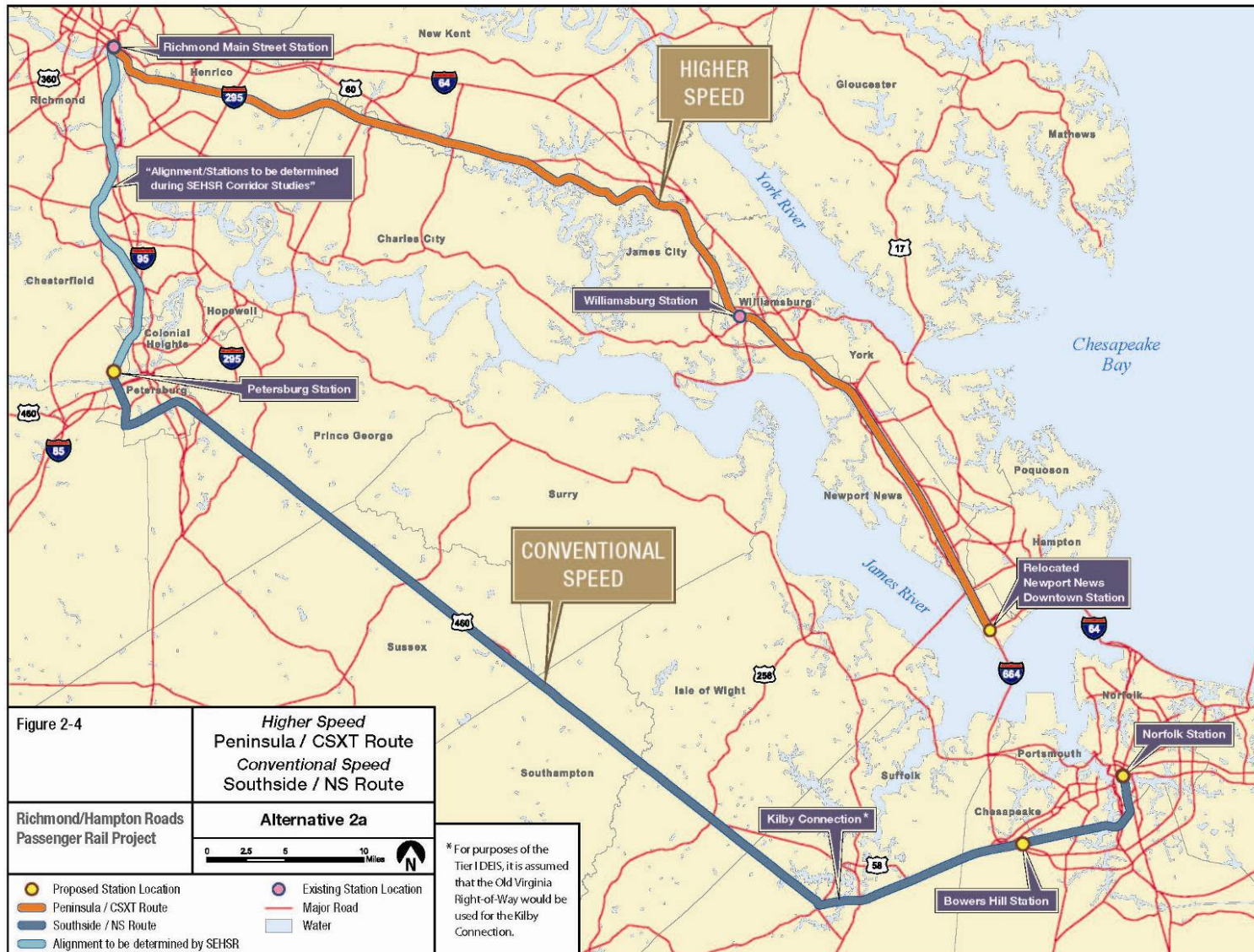
- Improved Amtrak service (3 trains) on the Peninsula route
- Existing highways
- Existing local transit service
- Existing air travel
- Projects in financially constrained regional long range plans

Alternative 1



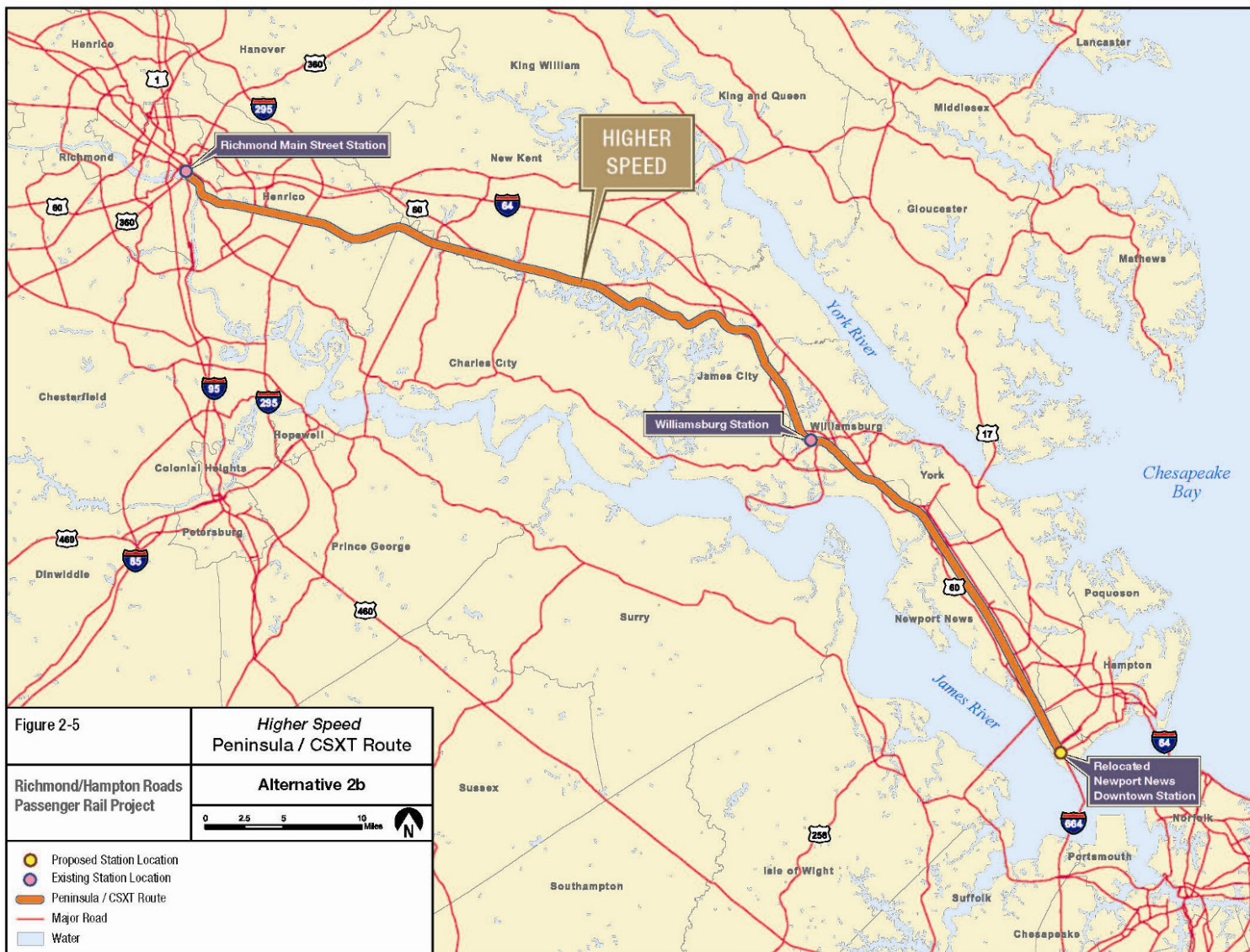
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Alternative 2a



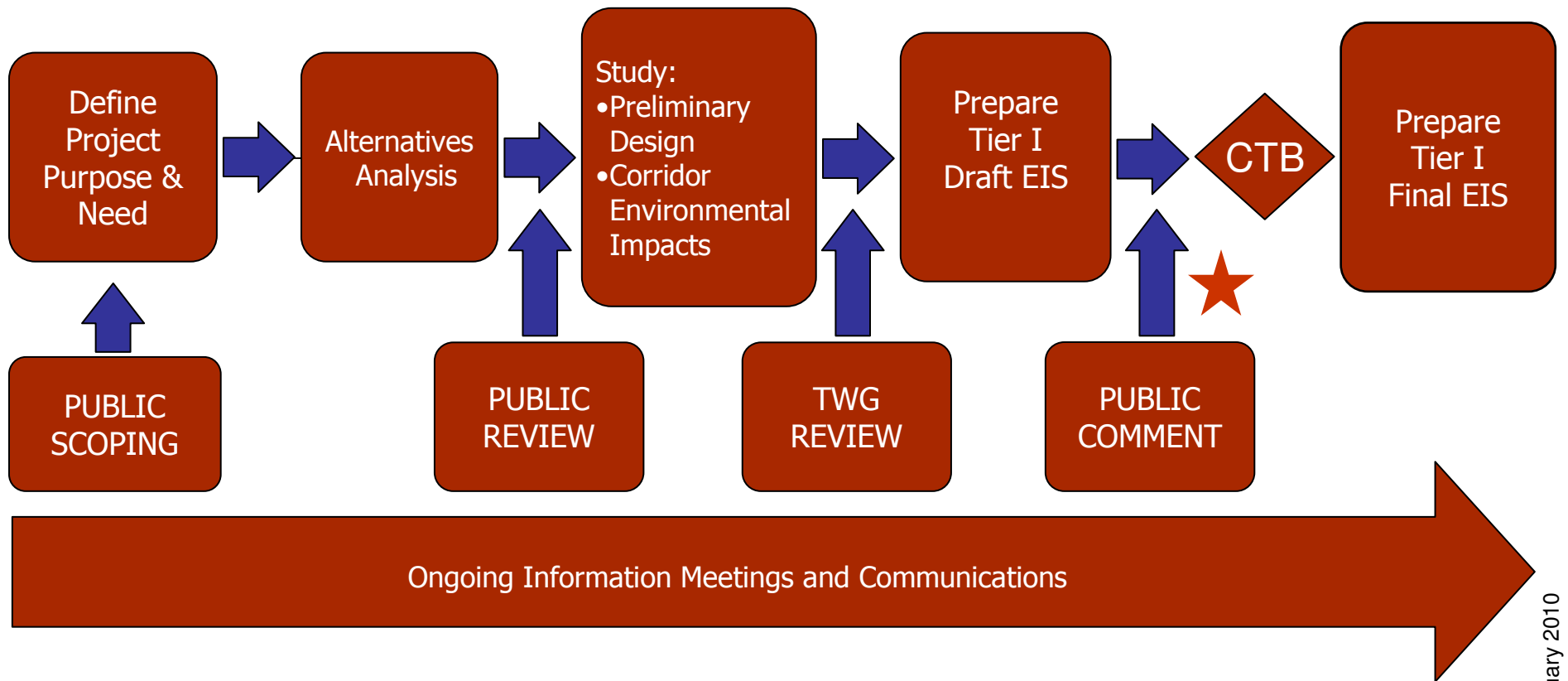
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Alternative 2b



Evaluating Alternatives

Richmond/Hampton Roads Passenger Rail Project Tier 1 Draft Environmental Impact Statement



Travel Time between Terminal City and Richmond, VA

Alternatives	Terminal City	Travel Time	Miles
Status Quo 79 mph Peninsula	Existing Newport News Station	1:25	73.9
No Action 79 mph Peninsula	Existing Newport News Station	1:11	73.9
90 mph Peninsula 110 mph Peninsula	Downtown Newport News	1:03 0:57	75.9
79 mph Southside 90 mph Southside 110 mph Southside	Downtown Norfolk	1:38 1:35 1:27	101.0

1 hour 25 minutes = 1:25

- ❑ Travel time savings range between 6-8 minutes by increasing the operating speed from 90 mph to 110 mph.
- ❑ Capital cost for 110 mph is significantly higher than 90 mph and ranges between \$68 and \$101 million depending on route selected.

Projected 2025 Ridership

Alternative	Estimate Range	Total Ridership 90 mph MAS	Total Ridership 110 mph MAS
Status Quo (79 mph MAS)	High Low	262,300 245,500	262,300 245,000
No Action (79 mph MAS)	High Low	464,800 425,700	464,800 425,700
Alternative 1	High Low	1,110,100 939,600	1,162,200 984,200
Alternative 2a	High Low	1,124,300 924,700	1,161,400 955,000
Alternative 2b	High Low	1,101,100 897,800	1,147,000 937,000

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Estimated Capital Cost

Alternative	Route	90 MPH MAS	110 MPH MAS
Alternative 1	Peninsula CSXT (79 mph)	0.0	0.0
	Southside NS (HSR)	475.4	543.0
	Total	\$475.4	\$543.0
Alternative 2a	Peninsula CSXT (HSR)	330.0	431.9
	Southside NS (79 mph)	412.3	412.3
	Total	\$742.3	\$844.2
Alternative 2b	Peninsula CSXT (HSR)	330.0	431.9
	Southside NS (No train)	0.0	0.0
	Total	\$330.0	\$431.9

Year of Expenditure Estimated in 2008 Dollars (In Millions)

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Estimated Operating Cost

Alternative	Route	90 MPH MAS	110 MPH MAS
Alternative 1	Peninsula CSXT (79 mph)	21.3	21.3
	Southside NS (HSR)	58.7	60.1
	Total	\$80.0	\$81.4
Alternative 2a	Peninsula CSXT (HSR)	53.4	54.9
	Southside NS (79 mph)	24.5	24.5
	Total	\$77.9	\$79.4
Alternative 2b	Peninsula CSXT (HSR)	71.7	72.4
	Southside NS (No Train)	0.0	0.0
	Total	\$71.7	\$72.4

Year of Expenditure Estimated in 2008 Dollars (In Millions)

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Cost Effectiveness

Annualized Cost per Rider

Alternative	Route	90 MPH MAS	110 MPH MAS
Alternative 1	Peninsula CSXT (79 mph)	95.34	95.82
	Southside NS (HSR)	108.72	109.76
	Average	\$106.03	\$107.09
Alternative 2a	Peninsula CSXT (HSR)	87.00	92.06
	Southside NS (79 mph)	272.75	296.35
	Average	\$121.64	\$126.01
Alternative 2b	Peninsula CSXT (HSR)	88.88	92.98
	Southside NS (no trains)	n/a	n/a
	Average	\$88.88	\$92.98

Cost effectiveness is calculated by annualizing capital costs, adding annual operating and maintenance costs and dividing the total by the high ridership estimate.

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Environmental Considerations

- ❑ Potential physical impacts primarily limited to areas where additional right of way may be required, such as:
 - Sidings for passing trains
 - New or improved rail connections
 - Parking expansions
 - New stations

- ❑ Proximity impacts may result from:
 - New passenger rail service
 - Increased frequencies of passenger rail service
 - Increased speeds of passenger rail service
 - Train horn noise at grade crossings

Potential Effects: Status Quo and No Action Alternatives

Alternative	Limit Highway Congestion	Probable Air Quality Impacts	Probable Wetland, Floodplain and Wildlife Habitat Impacts	Probable Noise Impacts	Probable Vibration Impacts	Sensitive Land Uses, Historic Properties and Open Space Impacts
<u>Status Quo</u> Peninsula	Does not support purpose and need	No impacts	No impacts	No impacts	No impacts	No impacts
Southside	No train	No train	No train	No train	No train	No train
<u>No Action</u> Peninsula	Does not support purpose and need	Baseline	Baseline	Baseline	Baseline	Baseline
Southside	No train	No train	No train	No train	No train	No train

Potential effects stated relative to project goal or objective when compared to No Action

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Potential Effects: Alternative 1

Route	Limit Highway Congestion	Probable Air Quality Impacts	Probable Wetland, Floodplain and Wildlife Habitat Impacts	Probable Noise Impacts	Probable Vibration Impacts	Sensitive Land Uses, Historic Properties and Open Space Impacts
Peninsula (79 mph)	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts
Southside (90 or 110 mph)	Supports	Supports	Potentially severe impacts	Impacts	Impacts	Supports economic development, impacts open space
Overall rating	+	+	- -	- -	- -	+

Potential effects stated relative to project goal or objective and No Action baseline alternative.

Legend:

++ strongly supports, **+** supports; **0** no impacts; **-** Minor negative impacts; **- -** Severe impacts

Potential Effects: Alternative 2a

Route	Limit Highway Congestion	Probable Air Quality Impacts	Probable Wetland, Floodplain and Wildlife Habitat Impacts	Probable Noise Impacts	Probable Vibration Impacts	Sensitive Land Uses, Historic Properties and Open Space Impacts
Peninsula (90 – 110 mph)	No impacts	No impacts	Probable impacts	Probable impacts	Probable impacts	Supports station area and economic development
Southside (79 mph)	Supports	Supports	Potentially severe impacts	Severe impacts	Severe impacts	Supports economic development, impacts open space
Overall rating	+	+	- -	- -	- -	+

Potential effects stated relative to project goal or objective and No Action baseline alternative.

Legend:

++ strongly supports, **+** supports; **0** no impacts; **-** Minor negative impacts; **- -** Severe impacts

Potential Effects: Alternative 2b

Route	Limit Highway Congestion	Probable Air Quality Impacts	Probable Wetland, Floodplain and Wildlife Habitat Impacts	Probable Noise Impacts	Probable Vibration Impacts	Sensitive Land Uses, Historic Properties and Open Space Impacts
Peninsula (90 -110 mph)	Supports purpose and need	Supports goals, positive impact	Probable impacts	Probable impacts	Probable impacts	Supports station area and economic development
Southside (no train)	No train	No train	No train	No train	No train	No train
Overall rating	+	+	-	-	- -	++

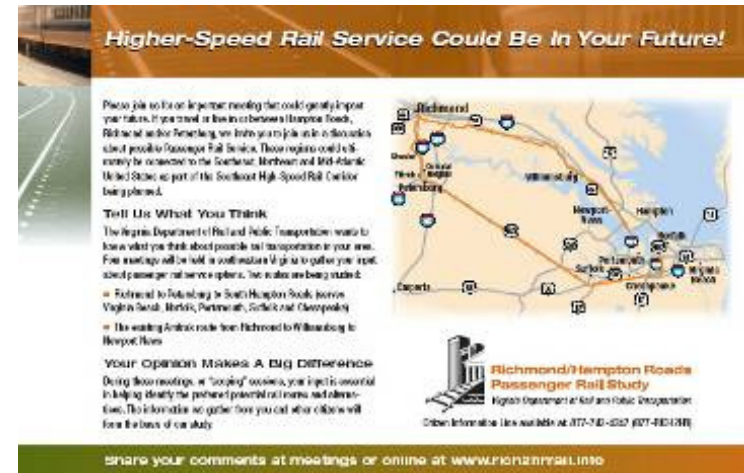
Potential effects stated relative to project goal or objective and No Action baseline alternative.

Legend:

++ strongly supports, + supports; 0 no impacts; - Minor negative impacts; - - Severe impacts

Public Involvement and Agency Outreach

- ❑ Technical Working Group meetings
- ❑ Speakers Bureau meetings
- ❑ Newsletters and fact sheets
- ❑ Public information meetings
- ❑ Project Web site
- ❑ Postcards
- ❑ Display ads in newspapers
- ❑ Media contacts



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Key Findings

- ❑ Status Quo and No Action Alternatives do not meet Purpose and Need.
- ❑ 90 mph is the optimum higher speed. Marginal ridership increases and minimal travel time savings at 110 mph require substantially more capital investment than 90 mph.
- ❑ Of the Build Alternatives:
 - Alternatives 1 and 2a serve the greatest population base with trains on both routes.
 - Alternatives 1 and 2a provide new passenger rail service to the Southside.
 - Alternatives 1 and 2a have the highest ridership.
 - Alternative 2b has the lowest capital and operating costs.
 - Alternative 2b is the most cost effective at \$88.88 per rider at 90 mph.
 - Alternative 2b has the least potential for negative environmental effects of the Build alternatives because improvements would only occur along one route and primarily within that route's existing right of way.

Overview of Next Steps

- ❑ DRPT will present a summary of public comments received at the February Commonwealth Transportation Board (CTB) workshop.
- ❑ The CTB will be asked to select the Preferred Alternative at the February action meeting.
- ❑ DRPT will apply for Round 2 Track 2 ARRA funds to advance the Preferred Alternative.
- ❑ DRPT will prepare and submit the Final Tier I EIS to the FRA.
- ❑ The FRA will issue a Record of Decision on the alternative that is eligible for federal funding.

Thank You!

